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Human Capital Development In Export Resource Economy

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ABSTRACT

The "resource curse", "Dutch disease", "gold rush", "blood diamonds" - these are just some of the epithets used when it comes to the role of natural resources in economic development. Of course, they do not make a positive trend for a constructive discussion on this topic. The purpose of the article is to change this attitude and establish the foundation for a road map, based on examples of successful economic development for the countries rich in minerals. The following main thesis is put forward: raw material production countries with high-quality human resources, expressed by economic and political institutions are better able to use income from the export of natural resources and achieve better results in terms of economic growth and social development.

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INTRODUCTION

The first significant systematic study of economic challenges related to natural resources was the work of Sachs and Warner called "Natural resource abundance and economic growth" (Sachs, J.D., A.M. Warner, 1995). This work laid the foundation for the hypothesis, became known later as "resource curse". The authors' main conclusion was the fact that the growth of economies with a high share of raw materials export in GDP for the twenty-year period from 1970 to 1990 was lower than the global average value. Some economists conducted a similar analysis.

In the nineties, most economists seem to have come to the following consensus: "resource curse" really exists. This concept was created by Richard Auty (1993). But it was not enough to state simply that minerals have a negative impact on growth. This thesis demanded justification. So some concepts appeared that focus on different channels through which resource dependence hinders growth. In the 2000s, a group of authors (within the concept of economic channels) began to explore the impact of volatility in commodity prices on growth and development. The publications of Cavalcanti and co-authors et (Cavalcanti, T.V.d.V., *et al*., 2009; Cavalcanti, T.V.d.V., *et al*., 2011; Cavalcanti, T.V.d.V., *et al*., 2011), Van der Plegia and Pulhekke (2010), Leong and Mohaddes (2011) demonstrated the negative impact of this factor.

However, in recent years as the result of more rigorous econometric analysis with the use of new, expanded data sets the hypothesis of "resource curse" became doubtful. Several scholars have come to different conclusions about the impact of natural resources. First, there were doubts about a particular period, chosen by Sachs and Warner for their research. Manzano and Rigobon published a report alleging that the historical period studied by Sachs and Warner, had a significant drop in raw material prices, which began in 1980 and lasted for 20 years (this time is sometimes called oil abundance of eighties) (Manzano, O., R. Rigobon, 2001).

Lederman and Maloney questioned the appropriateness of the attempt to make general conclusions about the impact of natural resources on growth and development (Lederman, D., W.F. Maloney, 2007; Lederman, D., W.F. Maloney, 2008). They suggested that some indicators used in previous studies may not be related to the degree of a country natural resources level. According to their analysis after the calculation of fixed effects the negative impact of resources disappeared: it allowed suggest that the factor of natural resources does not influence the result. The result is conditioned by the factor correlation with certain unobservable characteristics of the country.

The doubts about direct economic impact of resource abundance prompted several authors to seek a hidden channel through which natural resources can impact the development. In macroeconomic hypotheses the emphasis was on such issues as the "Dutch disease" and price volatility, but there was an alternative approach, within which the major factor hindering the growth in countries rich in minerals is considered to be institutional flaws. However, the differences between two trends formed within this institutional approach shall be noted.

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The first one was conditioned by the "resource curse" hypothesis: its representatives believe that the abundance of natural resources causes degradation of institutions, and corruption within the ruling elite, which leads to negative consequences for growth and development. In fact, the "resource curse" is transformed into "institutional curse." Another trend is institutionalism. It is also focused on institutions, but causal relationships are stated in the opposite way: the countries rich in natural resources are not doomed to institutional flaws, but on the contrary, the very weakness of institutions causes the growth and development decrease.

Methods:

Throughout history various mechanisms to reduce the impact of "resource curse" were developed. The main argument is the following: instead of fighting with different "curses" and "disease", states would be worth to look at themselves and analyze their own actions, and the nature and role of institutions they create, maintain, and often destroy. It would also be useful to compare the instruments of state control with the mechanisms that were successfully applied at the corporate level (for example, to reduce the price fluctuation effects). A number of states take the abovementioned measures creating stabilization funds and other similar structures. In this sense, the "Dutch disease" and the impact of commodity price volatility provide essentially institutional, rather than purely economic problems. Both factors create difficulties in certain circumstances, usually associated with the absence or insufficient development of certain institutions.

A few reasons of particular vulnerability for commodity-dependent economies should be mentioned when it comes to rent-seeking. Four reasons are particularly important among all other reasons.

• minerals immobility. A characteristic feature of extractive industries is the dependence on immobile minerals while they are under the ground. As a result, the real state control in this field is much stronger than in other sectors: a mine or an oil well can not be transferred in another country. As a result, the state authorities have much more options in terms of control.

• The raw nationalism. Minerals belong to the state and this fact creates a strong economic bias in favor of government control as opposed to private one in the whole chain of production, processing and distribution. This paradigm is often called resource nationalism. In almost all countries (except for the United States and Canada to a lesser extent) natural resources found in the bowels of the earth, are the property of the state.

• Redistribution by big state. A small percentage of the population is occupied in extractive industries, but it is often the proceeds from the sale of minerals which make up the most share of gross national income. As a result, one of the very essential function of the rentier state becomes the redistribution in its many forms (transfers, subsidies for non-oil sector, large-scale public infrastructure projects, various privileges, etc.). One of the main ways of rent-seeking is the seizure of such transfers for private interests.

• Elite isolation and security. For the above reasons, the rent from natural resources is easily appropriated and thus it is extremely capable to increase the wealth of ruling elite. Rents from natural resources can be used as a carrot through transfers to buy the population loyalty and as a stick, if dissatisfaction persists and grows into a political protest. Therefore, many commodity-exporting countries spend a large part of the budget for police, army and intelligence services.

The quality of institutions determine whether the abundance of minerals is a bless or a curse.

Main part:

Within the framework of human capital not only the development of health, knowledge, human motivation, but also the development of institutions (economic freedom, property rights, stabilization funds, innovation, labor mobility) is performed as the form of human capital realization.

Economic freedom is important because it represents one of the main prerequisites for the growth and development. The comparative analysis shows a strong positive correlation between economic growth and economic freedom in all studied countries (see Figure 1). Furthermore, it is a prerequisite for other parameters development. A higher level of economic freedom is positively correlated with such indicators as life expectancy, literacy, civil and political rights. At the same time it shows a negative correlation with poverty and corruption. Finally, economic freedom impacts not only the material well-being which is also important. Economic rights and, more specifically, property rights are an integral part of fundamental human rights. Thus, in the absence of economic freedom the system of civil and political rights can not be considered as complete one.

The country exporting minerals is able to catch up in economic development if it will increase the level of economic freedom. Even a relatively small improvement in this area provides fairly positive and significant results.

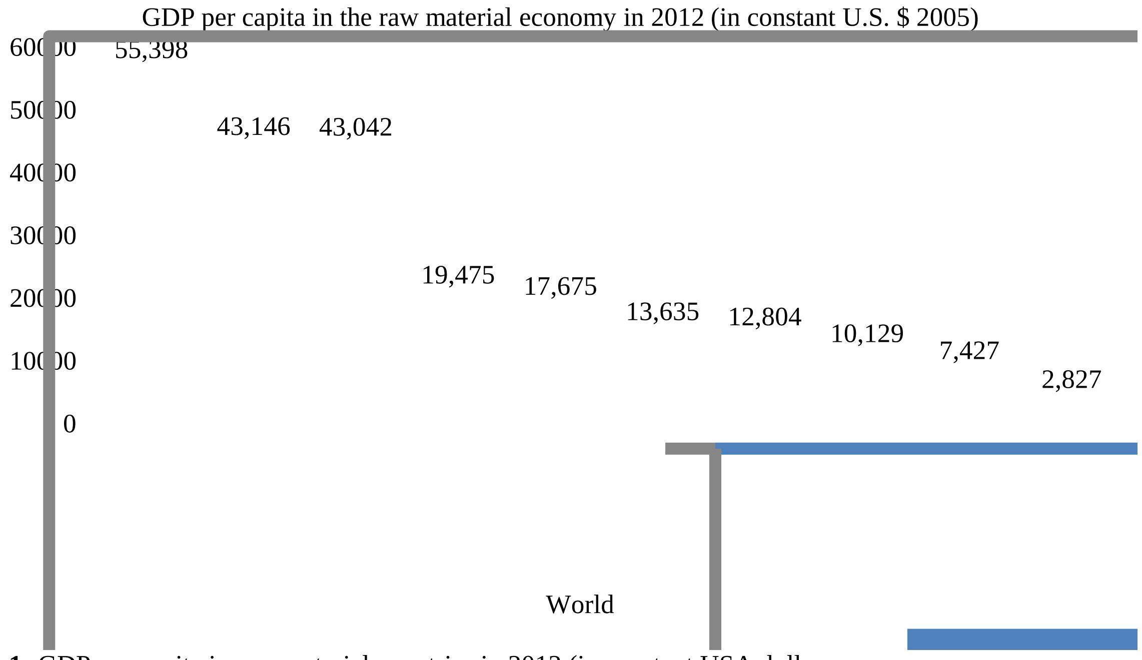

Fig. 1: GDP per capita in raw material countries in 2012 (in constant USA dollars
Data: World Bank

A strong positive correlation between economic freedom in commodity economies with the level of real GDP per capita (BY purchasing power parity), as well as other economic and social indicators are demonstrated. The lower level of crime, corruption and illiteracy is observed where the degree of economic freedom is higher. The most important conclusion is based on the conducted studies, as well as on own researches. This conclusion states that the socio-economic performance of the countries with commodity-dependent economies depend primarily on the development of institutional system, which is the best indicator of economic freedom.

It should be noted that although the practical experience clearly speaks in favor of private property in the area of natural resources extraction, this model is not a miracle cure. We already mentioned that institutions are a key element of effective economic model for the countries exporting natural resources. In the absence of strong and transparent institutions, private companies are quickly corrupted by rent-seeking as the "appropriation" is more profitable than productive entrepreneurial activity. The result is a structure that at first glance seems a privately owned but actually it acts as the system of government-linked group interests and clans. Moreover, in certain circumstances and under right policy certain state corporations achieve impressive results. Specific company establishment and especially the institutional environment in which it operates is important here. State-owned companies which establish a large-scale and long-term partnership with international corporations, as a rule, are much more successful than state-owned enterprises developing under autarky conditions.

In recent decades, the idea of stabilization funds, undoubtedly gained its popularity, and some countries have successfully developed similar structures. The results of situation comparison in the states with and without such institutions favor stabilization funds to some extent.

Stabilization funds with proper organization and management can perform the following tasks:

• redeem the part of revenue inflows during the periods of high commodity prices and prohibit the national currency rate growth, which is one of "Dutch disease" main consequences;

• restrain risks associated with price instability, and maintain the level of public costs during recessions;

• contribute to fiscal discipline by limiting public costs.

One of the most important external effects of shale boom is the undermining of common but preconceived opinion about the lack of innovation in extractive industries. Politicians who wish to be be considered as progressive, often repeated the idea that modernization and post-industrial era require restriction on mining. It is time to recognize this concept as an obsolete one. Shale revolution is essentially a technological breakthrough of the highest level. It is no coincidence that a breakthrough in the production of unconventional hydrocarbons occurred in the countries holding the highest places in the ranking of economic freedom - Canada, USA and Australia. Other favorable conditions, such as high gas prices in the 2000s also favored it. But an institutional component became the decisive factor. We are talking about the combination of secured property rights, a favorable tax regime, transparent and effective regulation and a minimum amount of bureaucratic red tape. It should also be noted that all three countries have numerous private companies in extractive sectors - from small exploration companies to vertically integrated transnational corporations. Industrial extraction technologies for shale gas were developed by several companies: Chevron, Shell, Devon, Talisman Energy, Chesapeake and Range Resources. Institutional conditions which made the shale revolution possible, deserve careful study by the political elite of other countries, especially for the countries with commodity-dependent economies.

In certain political framework and at appropriate institutional conditions the demand for labor in the countries with commodity-dependent economies can be partly met by immigrants. The reasonability for this decision in each country depends on several factors mostly of political and cultural than economic character. There are many examples of the country competently control concerning the influx of businesslike and creative people from abroad. By economic performance such countries exceed the countries, developing in autarky conditions.

One of the most important phenomena in many commodity-dependent economies is rent-seeking. Of course, this phenomenon exists not only in countries rich in natural resources, but evidently it has the strongest impact leading to institution weakness. You can name a few reasons why countries with commodity-dependent economies are particularly vulnerable to rent-seeking. The actual control of the state (its level is much higher in extractive industries than in other sectors), raw nationalism, larger redistribution scale and elite security. In countries with commodity-dependent economies rent-seeking is one of the main obstacles to economic growth and social development. The regulation in some areas, such as security of property rights, an independent judiciary systems and law enforcement agencies are essential to the effective functioning of human capital. However, the more some regulation fields are removed from the state basic functions, the more likely its negative impact on economic growth. Regulation has the effect of both positive and negative action multiplication: effective regulation, strengthening the rule of law, could give a boost to economy, but even small state agencies can bring considerable harm due to bureaucratic red tape, interference and intervention in market relations.

Conclusion:

The raw countries with a developed human capital, with more effective economic and political institutions are better able to manage income from its natural resources and to achieve better results in terms of economic growth and social development. Instead of fighting with different "curses" and "disease", states would be worth to look at themselves and analyze their own actions, as well as institutional conditions in the economies which they control. The quality of human capital determines whether the abundance of natural resources is a blessing or a curse.

Summary:

When struggling with the "dependence on raw materials" consequences states often try to keep declining non-oil industrial sector through direct or indirect subsidies, such as by fuel price restrictions. Such industries dependent on subsidies become less effective so that they are able to involve the entire economy into recession. Thus the originally proposed as a cure, often becomes the stagnation source. "Commodity dependence" and the impact of price fluctuations in raw materials are primarily institutional rather than economic problems. They create difficulties in particular circumstances, usually associated with the absence of strong and transparent institutions. As for diversification, it makes sense when it leads to an overall increase in efficiency, which is hardly possible if the winners are assigned by state. The lack of diversification in economy is the result of lack of efficacy (and red tape), which does not allow companies to operate profitably in other sectors. When money are pumped into these sectors the efficiency problem not only persists, but is getting worse.

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REFERENCES

Sachs, J.D., A.M. Warner, 1995. Natural resource abundance and economic growth. NBER Working, pp: 5398.

Auty, R.M., 1993. Sustaining Development in Mineral Economies: The Resource Curse Thesis.

Cavalcanti, T.V.d.V., K. Mohaddes, M. Raissi, 2009. Growth, Development and Natural Resources: New Evidence Using a Heterogeneous Panel Analysis. Cambridge Working Papers in Economics 0946.

Cavalcanti, T.V.d.V., K. Mohaddes, M. Raissi, 2011. Commodity Price Volatility and the Sources of Growth. Faculty of Economics, University of Cambridge.

Cavalcanti, T.V.d.V., K. Mohaddes, M. Raissi, 2011. Does Oil Abundance Harm Growth? Applied Economics Letters Forthcoming 10.

Leong, W., K. Mohaddes, 2011. Institutions and the Volatility Curse. CWPE pp: 1145.

Advances in Natural and Applied Sciences, 8(4) April 2014, Pages: 320-324

Van der Ploeg, F., S. Poelhekke, 2010. The Pungent Smell of "Red Herrings": Subsoil Assets, Rents, Volatility and the Resource Curse. Journal of Environmental Economics and Management, 60(1): 44-55.

Manzano, O., R. Rigobon, 2001. Resource Curse or Debt Overhang? NBER Working, pp: 8390.

Lederman, D., W.F. Maloney, 2007. Natural Resources Neither Curse nor Destiny. The International Bank for Reconstruction and Development / The World Bank.

Lederman, D., W.F. Maloney, 2008. In Search of the Missing Resource Curse. World Bank, Policy Research Working, pp: 4766.